401 KAR 61:090. Existing automobile and light-duty truck surface coating operations.

NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
Department for Environmental Protection
Division for Air Quality

RELATES TO: KRS 224.20-100, 224.20-110, 224.20-120, 42 USC 7401 et. seq., 42 USC 7407, 42 USC 7408, 42 USC 7410
STATUTORY AUTHORITY: KRS 224.10-100
NECESSITY AND FUNCTION: KRS 224.10-100 requires the Natural Resources and Environmental Protection Cabinet to prescribe regulations for the prevention, abatement and control of air pollution. 42 USC 7410 likewise requires the state to implement standards for national primary and secondary ambient air quality. This regulation provides for the control of volatile organic compound emissions from existing automobile and light-duty truck surface coating operations.

Section 1. Definitions.
As used in this regulation, all terms not defined in this section shall have the meaning given to them in 401 KAR 61:001.

(1) "Affected facility" means a coating line for automobile and light-duty truck frames, small parts, wheels, and main body parts at an assembly plant but does not include the following:

(a) Underbottom - sound deadener coatings;

(b) Zinc rich anti-rust and weld line anti-rust prime coatings;

(c) Adhesive coatings or mastics;

(d) Flexible coatings;

(e) Plastic body fillers or caulks; or

(f) Interior coatings which are applied after upholstery and interior plastic parts are attached to the body.

(2) "Applicator" means the mechanism or device used to apply the coating, including, but not limited to, dipping and spraying.

(3) "Automobile" means all passenger cars or passenger car derivatives capable of seating twelve (12) or fewer passengers.

(4) "Classification date" means June 29, 1979.

(5) "Coating line" means a series of equipment or operations used to apply, dry, or cure any prime, topcoat or repair coatings containing volatile organic compounds (VOCs). This shall include, but is not limited to:

(a) Mixing operations;

(b) Process storage;

(c) Applicators;

(d) Drying operations including, but not limited to, flashoff area evaporation, oven drying, baking, curing, and polymerization;

(e) Clean up operations;

(f) Leaks, spills and disposal of VOCs;

(g) Processing and handling of recovered VOCs;

(h) For the purposes of determining compliance with this regulation, if any equipment or operation is considered to be a part of more than one (1) coating line, its VOC emissions shall be assigned to each coating line of which it is a part proportionally to the throughput of VOC it receives from or distributes to each coating line;

(i) If any portion of the series of equipment or operations qualifies for an exemption according to Section 6 of this regulation, then that portion shall be considered to be a separate coating line.

(6) "Final repair coating line" means a coating line for the repainting of any coatings which are damaged during vehicle assembly.

(7) "Flashoff area" means the space between the application area and the oven.

(8) "Light-duty truck" means all motor vehicles rated at 3,864 kilograms (8,500 pounds) gross vehicle weight or less which are designed primarily for purposes of transportation of property or are derivatives of

these vehicles (including, but not limited to, pickups, vans, and window vans.)

(9) "Prime coat coating line" means a coating line for the first coating and surfacer which are responsible for protecting the surface from corrosion and providing for good adhesion of the topcoat.

(10) "Process storage" means mixing tanks, holding tanks, and other tanks, drums, or other containers which contain surface coatings, VOCs, or recovered VOCs; but does not mean storage tanks of petroleum liquids which are subject to 401 KAR 59:050, 401 KAR 59:052, or 401 KAR 61:050.

(11) "Topcoat coating line" means a coating line for the coating of the surface to obtain desired aesthetic effects.

(12) "Surfacer" means the spray application of primer to touch-up areas on the surface not adequately covered during electrodeposition.

(13) "VOCs net input" means the total amount of VOCs input to the affected facility minus the amount of VOCs that are not emitted into the atmosphere. VOCs that are prevented from being emitted to the atmosphere by the use of control devices shall not be subtracted from the total for the purposes of determining VOCs net input. When the nature of any operation or design of equipment permits more than one (1) interpretation of this definition, the interpretation that results in the minimum value for allowable emission shall apply.

(14) "Electrophoretic deposition" means a process of applying a coating by dipping the component in a coating bath with an electrical potential difference between the component and the bath.

Section 2. Applicability.

(1) This regulation shall apply to each affected facility commenced before the classification date defined in Section 1 of this regulation which is located in a county or portion of a county which is designated ozone nonattainment, for any nonattainment classification except marginal, under 401 KAR 51:010.

(2) This regulation shall not apply to affected facilities which are subject to local air pollution control district regulations which have been approved by the cabinet and the U.S. EPA.

Section 3. Standard for VOCs.

No person shall cause, allow, or permit an affected facility to discharge into the atmosphere more than fifteen (15) percent by weight of the VOCs net input into the affected facility.

Section 4. Compliance.

(1) If applicable, compliance is determined by "Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," which has been incorporated by reference in Section 7 of this regulation.

(2) In all cases the design of any control system shall be subject to approval by the cabinet.

(3) Compliance with the standard in Section 3 of this regulation shall be demonstrated by a material balance unless the cabinet determines that a material balance is not possible. If a material balance is not possible, compliance shall be determined based upon an engineering analysis by the cabinet of the control system design, control device efficiency, control system capture efficiency, and any other factors that may influence the performance of the system. If requested by the cabinet, performance tests specified by the cabinet shall be conducted to determine the efficiency of the control device. Capture efficiency shall be determined by procedures specified in 401 KAR 50:047.

(4) With the prior approval of the cabinet, the owner or operator may elect to effect all changes necessary to qualify for an exemption under Section 6 of this regulation.

(5) If deemed necessary by the cabinet, the cabinet shall obtain samples of the coatings used at an affected facility to verify that the

coatings meet the requirements in Section 6 of this regulation.

Section 5. Compliance Timetable.

(1) Affected facilities which were subject to this regulation as in effect June 29, 1979, shall have achieved final compliance by January 1, 1983, for prime coatings systems and final repair systems and by January 1, 1986, for topcoat systems.

(2) The owner or operator of an affected facility that becomes subject to this regulation on or after the effective date of this regulation shall be required to complete the following:

(a) Prime coatings systems, topcoat systems, and final repair coating systems except as provided for in paragraph (b) of this subsection:

1. A final control plan for achieving compliance with this regulation shall be submitted no later than nine (9) months after the date the affected facility becomes subject to this regulation.

2. The control system contract or the exempt coatings contracts and purchase orders shall be awarded no later than eleven (11) months after the date the affected facility becomes subject to this regulation.

3. On-site construction or installation of emission control equipment or process changes for exempt coatings shall be initiated no later than thirteen (13) months after the date the affected facility becomes subject to this regulation.

4. On-site construction or installation of emission control equipment or process changes for exempt coatings shall be completed no later than seventeen (17) months after the date the affected facility becomes subject to this regulation.

5. Final compliance shall be achieved no later than eighteen (18) months after the date the affected facility becomes subject to this regulation.

6. If an affected facility becomes subject to this regulation because it is located in a county previously designated nonurban nonattainment or redesignated in 401 KAR 51:010 after November 15, 1990, final compliance may be extended to May 31, 1995, and the schedule in paragraphs (a) through (d) of this subsection adjusted by the cabinet.

(b) Prime coating lines which are using electrophoretic deposition on or before the effective date of this regulation shall be in compliance on the effective date of this regulation.

Section 6. Exemptions.

(1) Any affected facility shall be exempt from Section 3 of this regulation if the VOC content of the coating is:

(a) Prime coating line: 0.14 kg/l of coating (1.2 lb/gal), excluding water or exempt solvent or both, which shall be applied by electrophoretic deposition and 0.34 kg/l of coating (2.8 lb/gal), excluding water or exempt solvent or both, delivered to the applicators associated with the surfacer. An alternative for the surfacer is fifty-five (55) percent solids by volume organic-borne prime coat applied with a minimum of sixty-five (65) percent transfer efficiency, or 1.9 kg/l (15.1 lb/gal) of solids deposited. An alternative for the prime coating line is an organic-borne prime coat consisting of a minimum of fifty-five (55) percent solids by volume which is applied with a minimum of fifty (50) percent transfer efficiency.

(b) Topcoat coating line: 0.34 kg/l of coating (2.8 lb/gal), excluding water or exempt solvent or both, delivered to the applicator(s) associated with the topcoat coating line or a fifty (50) percent solids by volume organic-borne topcoat applied with a minimum of sixty-five (65) percent transfer efficiency, or 1.9 kg/l (15.1 lb/gal) of solids deposited.

(c) Repair coating line: 0.58 kg/l of coating (4.8 lb/gal), excluding water or exempt solvent or both, as delivered to the applicator applied with a minimum of sixty-five (65) percent transfer efficiency.

(2) Any affected facility using this section may elect to use a weighted average of the coatings used in the particular coating line involved. If this average meets the exemption then all the coatings shall be considered

to meet the exemption.

(3) The exemptions specified in this section may be achieved by:

(a) Use of low solvent coating; or

(b) Any other emission reduction process or equipment shown to be as effective.

(4) Low-use coatings shall be exempt from Section 3 of this regulation if the plantwide consumption of these coatings in the aggregate is less than or equal to fifty-five (55) gallons during the previous twelve (12) months.

Section 7. Reference Material.

(1) Incorporation by reference. The following document is incorporated by reference: "Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light Duty Truck Topcoat Operations," EPA-450/3-88-018, December 1988, available from U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, North Carolina 27711 and the U.S. Department of Commerce, National Technical Information Service, Springfield, Virginia 22161.

(2) The document incorporated by reference in subsection (1) of this section is available for public inspection and copying, subject to copyright law, at the following main and regional offices of the Kentucky Division for Air Quality during the normal working hours of 8:00 a.m. to 4:30 p.m., local time.

(a) Kentucky Division for Air Quality, 316 St. Clair Mall, Frankfort, Kentucky 40601, (502) 564-3382;

(b) Ashland Regional Office, 3700 Thirteenth Street, Ashland, Kentucky 41101, (606) 325-8569;

(c) Bowling Green Regional Office, 1508 Westen Avenue, Bowling Green, Kentucky 42104, (502) 843-5475;

(d) Florence Regional Office, 7964 Kentucky Drive, Suite 8, Florence, Kentucky 41042, (606) 292-6411;

(e) Hazard Regional Office, 233 Birch Street, Hazard, Kentucky 41701, (606) 439-2391;

(f) Owensboro Regional Office, 311 West Second Street, Owensboro, Kentucky 42301, (502) 686-3304; and

(g) Paducah Regional Office, 4500 Clarks River Road, Paducah, Kentucky 42003, (502) 898-8468.

Effective Date: June 24, 1992

	Date Submitted to EPA	Date Approved by EPA	Fedaeral Register
Original Reg	JUN 29, 1979	JAN 25, 1980	45 FR 6092
		AUG 07, 1981	46 FR 40188
1st Revision	OCT 20, 1992	JUN 23, 1994	59 FR 32345